DOCKET NO.: IBIS0036-101 (IBIS-0005US.C1)   **PATENT**

In the Claims:

Please amend claim 27 as follows:

12.   (previously presented) A method of identifying *in silico* each compound of a virtual library of compounds comprising:

dissecting said compounds into constituent fragments, where the constituent fragment is associated with at least one reagent, which represents a necessary chemical to introduce the constituent fragment into the compound, and where the dissecting is based on the ease of synthesis of the compound from the constituent fragments;

adding said constituent fragments together in sequential synthesis rounds defining thereby a synthetic method for the compound from the constituent fragments; and

tracking the virtual synthetic addition of constituent fragments of said compounds according to the synthetic method for the compound, thereby identifying each compound of the virtual library.

27.   (currently amended) The method according to claim 12 wherein the dissecting is <u>further</u> based on commercial availability of ~~constituent fragments~~ <u>reagents</u>.

28.   (previously presented) The method according to claim 12 wherein the synthetic method for the compound uses known reactions and reagents.

29.   (previously presented) The method according to claim 12 wherein the dissecting is characterized by formation of constituent fragments for which the reverse transformation is known.

- 2 -